

Using Data to Improve Student Achievement: Montana State Context

MCEL Pre-Conference Session
October 19, 2011
Great Falls Holiday Inn

Madalyn Quinlan, Chief of Staff
Montana Office of Public Instruction



Office of Public Instruction Core Business Processes

- License educators
- Recommend academic standards & curriculum
- Administer statewide student assessment
- Distribute state and federal funding
- Collect and report data
- Ensure compliance
- Conduct data-driven analysis & interventions



Information Systems to Support Core Business Processes

- State assessment results management
- Educator licensure information system
- School directories
- Student information system – AIM
- Programs and course offerings – ADC
- School finance system – MAEFAIRS
- School facilities – statewide inventory
- Safety and discipline data



SB 329 - Pathway to Excellence

- **Purpose:** To promote education excellence in Montana's public schools through data-driven decision-making
- **Intent:** That Montana K-12 public education maintain a focus on continuous improvement and increased academic achievement for public school students



District Education Profile

- **OPI** must develop a publicly available data system that displays an *educational data profile* for each school district. At a minimum, include:
 - Contact information and link to district website
 - State criterion-referenced testing results
 - Program and course offerings
 - Student enrollment and demographics by grade level
 - Graduation rates



Impact on School Districts Data Reporting for District Profile

- ✓ Contact Information
- ✓ Criterion-referenced testing
- ✓ Program and course offerings
- ✓ Student enrollment
- ✓ Student demographics
- ✓ Graduation rates

These will not require any new reporting by school districts.



Annual Reporting Requirements

- **Each school district** must annually report certain information to OPI and post the information on its website:
 - Employee information, including position, base wage or salary, overtime pay, extracurricular income, certification held by and required of the employee
 - Student-teacher ratio by grade
 - \$\$ spent for operation and maintenance; total cost and cost/sq. ft.
 - Principal and interest paid on bonds
 - Total expenditures per student
 - Total budget for all funds
 - Total students enrolled and average daily attendance
 - Total \$\$ spent for extracurricular activities and # of students
 - # of students entering 9th grade, but did not graduate from a high school in the district and the district didn't receive a transfer request



Reporting required by SB 329 (cont.)

NEW **Salary and Benefit information**

- ✓ Student-teacher ratio
- ✓ Expenditures for operation and maintenance

NEW **Operation & Maintenance costs per square foot**

- ✓ Principal and interest on bonds
- ✓ Total expenditures per student
- ✓ Total budget for all funds
- ✓ Students enrolled

NEW **Average daily attendance**

- ✓ Total expenditures for extracurricular

NEW **Number of students participating in extracurricular activities**

- ✓ 4-year cohort graduation rate



Salary and Benefit Information

- School districts currently report salary and benefit information in aggregate by fund, program, function, and object
- Under SB 329, schools will need to report salary and benefit information for each employee
- For each employee, detail will include fund, program, function, object, and position code



O&M per square foot

- In 2008, the state inventory of school facilities included square footage and percentage of total square footage being utilized for educational programs
- The existing data and information could be used to calculate O&M per square foot in a consistent manner across districts.



Average Daily Attendance

- Two official count dates, the first Monday in October and February 1.
- For 2011-12, OPI plans to collect from each school district the days of attendance and days of enrollment for each student.
- Once the 2011-12 "trial year" is completed, OPI will propose rules which define average daily attendance for the long-term.



Participants in Extracurricular Activities

- The state has not previously collected information regarding participation in extracurricular activities.
- OPI plans to work with stakeholder groups to determine the appropriate level of detail for this collection.



Collective Bargaining Agreements

- **Each school district** must post on its website:
 - Copy of every working agreement with a union
 - District's costs, if any, associated with
 - employee union representation
 - collective bargaining
 - union grievance procedures
 - litigation resulting from union employee grievances
- **Don't have a website?**
 - Publish the information in printed form
 - Provide a copy upon request; district pays for printing only



Transparency of reporting

- **OPI shall:**
 - Continually enhance the statewide data system to support collection of data from schools
 - Implement a data collection plan to reduce redundant data requests
 - Increase data use from the centralized system by the various functions within OPI
 - Promote transparency in reporting
 - Produce actionable data analysis to promote academic improvement



Data Elements for a Longitudinal System

- **OPI** must gather, maintain and distribute longitudinal, actionable data:
 - Statewide student identifier
 - Student-level enrollment, including average daily attendance
 - Student-level statewide assessment
 - Information on untested students
 - Student-level graduation and dropouts
 - Ability to match student-level K-12 and higher education data
 - A statewide data audit system
 - A system to track student achievement with a direct teacher-to-student match to help track, report and create opportunities for improved individual student performance
 - Student-level course completion, including transcripts
 - Student-level ACT, scholastic achievement and AP information



Reporting by June 30, 2013

- **OPI** shall emphasize the creation and distribution of individual diagnostic data
 - Must be timely
 - Must protect the privacy rights of students and families as they relate to education
 - School districts should be able to use the data to support timely academic intervention
- On or before June 30, 2013, **OPI** shall begin presenting longitudinal data on academic achievement





Growth and Enhancement of Montana Students (GEMS)

- Montana's Statewide Longitudinal Data System
 - will provide access to multiple years of longitudinal data in order to track school and student information across time
 - will remove barriers to obtaining data in a usable form for decision-makers
 - GEMS will store all data collected by the OPI to provide an effective, timely and efficient approach to analyze student and school performance



SJ 26 – Interim Monitoring Activities

BE IT FURTHER RESOLVED, that the Joint Subcommittees' recommendation requests interim monitoring of K-12 education and the progress on:

(1) implementing state actions to create a culture of effective data use and to improve student performance;

and

(2) goals and objectives on K-12, higher education, and P-20, including the role and mission of the Education and Local Government Interim Committee, which absorbed the Joint Committee on Postsecondary Education Policy and Budget that was repealed in 1999.



Data Quality Campaign: 10 State Actions to Support Effective Data Use

1. Link state K-12 data systems with early learning, postsecondary education, workforce, social services and other critical agencies

- Out of scope for GEMS
- First implementation will be with DPHHS if we get the Direct Certification grant



10 State Actions (continued)

2. Create stable, sustained support for robust state longitudinal data systems

- Out of scope for GEMS
- From the DQC
 - Ensure state budgetary investment for the maintenance and growth of statewide P-20/W longitudinal data systems
 - Create the political demand for data sharing – share the advantages of having information follow individual students, even across state and district lines, and to break down traditional silos.



10 State Actions (continued)

3. Develop governance structures to guide data collection, sharing and use

- GEMS will accomplish

4. Build state data repositories (e.g., data warehouses) that integrate student, staff, financial and facility data

- GEMS will accomplish

5. Implement systems to provide all stakeholders with timely access to the information they need while protecting student privacy

- GEMS will accomplish



10 State Actions (continued)

6. Create progress reports with individual student data that provide information educators, parents and students can use to improve student performance

- GEMS will lay the groundwork, but will not complete this goal.
- From the DQC
 - Ensure that on-line access to these reports are available to appropriate users while protecting student and teacher privacy by limiting access to appropriate users.
- Support the development of early warning systems, growth models and predictive analysis tools that use longitudinal student data to inform and improve teaching and learning.



10 State Actions (continued)

- 7. Create reports that include longitudinal statistics on school systems and groups of students to guide school-, district-, and state-level improvement efforts**
 - GEMS will Accomplish
- 8. Develop a purposeful research agenda and collaborate with universities, researchers and intermediary groups to explore the data for useful information**
 - GEMS will make this possible, but it is not currently in scope
 - From the DQC
 - Encourage the development of strategic partnerships with universities, researchers, and intermediary groups to help establish a robust research agenda.
 - Ensure that researchers have appropriate access to longitudinal data.



10 State Actions (continued)

- 9. Implement policies and promote practices, including professional development and credentialing, to ensure educators know how to access, analyze and use data appropriately**
 - Out of scope for GEMS
 - From the DQC
 - Require educators seeking certification and certification upgrades to show competence in data analysis, interpretation and use.
 - Promote and support educator professional development with regard to data access, use and analysis.
 - Ensure that educator and leadership preparation programs have appropriate data to conduct analysis for programmatic improvement.



10 State Actions (continued)

- Support the development of a culture of data at the district level by emphasizing the role of robust data systems in the school improvement planning process and professional development activities.
- Support district efforts to provide educators access to the appropriate technology to enable data access, analysis, and communication at the building level.

10. Promote strategies to raise awareness of available data and ensure that all key stakeholders, including state policymakers, know how to access, analyze and use the information

- GEMS will accomplish



10 State Actions Summary

- GEMS will accomplish # 3, 4, 5, 7, 10
- GEMS will enable #6, 8
- Outside the scope of GEMS #1, 2, 9



For more information

- GEMS – MT's Statewide Longitudinal Data System Project
 - Friday, October 21, 10 a.m.
 - CM Russell High School, Room 220
- MASBO General Membership Meeting
 - Friday, October 21, 9 a.m.
 - CM Russell High School, Orchestra Room

